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ABSTRACT OF THE DISCLOSURE

A method for performing optical signal and beam distribution in a heterodyne interferometer. A planar lightwave circuit is provided including a plurality of waveguide optical transmission elements and an input coupler and an output coupler arranged along the optical transmission elements. Optical pathlengths of the transmission elements are matched between the input coupler and the output coupler to compensate for thermal effects. Reference and measurement optical phases are determined employing the input coupler and the output coupler.